

Appl. No. 09/741,807
Amendment Dated March 4, 2005
Reply to Office Action of February 4, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) An apparatus comprising:

a transformer to transform a message from a first format to a second format;

a switch to switch the transformed message to a selected processing node; and

a message director to connect to the transformer and the switch, the message director to make a switching decision for the message based upon application data in the message, and output the switching decision to the switch.
2. (Original) The apparatus of claim 1 wherein the apparatus comprises a transforming switch.
3. (Canceled)
4. (Original) The apparatus of claim 1 wherein the transformer selects a transformation template to transform the message based on one or more of the following in the message matching a predetermined pattern or value:

an address and/or port number in the message;

a request line or an identification of an application to process a portion of the message;

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a root element or a root tag or other information that describes the content of the message;

a validation template or a reference to a validation template;

one or more XML tags; and

business transaction information.

5. (Previously Presented) The apparatus of claim 4 wherein if the message is transformed based on the validation template or a reference to a validation template then said validation template comprises either a Document Type Definition (DTD) or a schema.

6. (Original) The apparatus of claim 1 wherein the apparatus is a transforming switch coupled between a network and a plurality of servers or processing nodes.

7. (Original) The apparatus of claim 1 wherein the transformer transforms the message from a first XML format to a second XML format.

8. (Original) The apparatus of claim 1 wherein the transformer transforms the message from one or more of the following:

HTML to XML;

XML to HTML;

XML to EDI;

EDI to XML;

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XML to ASCII flat file;
ASCII flat file to XML;
ASCII flat file to EDI; and
EDI to ASCII flat file.

9. (Original) The apparatus of claim 1 and further comprising a security accelerator to encrypt and/or decrypt messages.

10. (Original) The apparatus of claim 1 and further comprising a validator coupled to the transformer to validate received messages based on one or more validation templates.

11. (Withdrawn) An apparatus comprising:
a validator to validate messages based on one or more validation templates;
a transformer coupled to the validator to transform the message from a first format to a second format based on a first portion of the message that matches a first predetermined pattern or value; and
a switch coupled to the transformer to switch or output the transformed message to a selected processing node or server based on a second portion of the message that matches a second predetermined pattern or value.

12. (Withdrawn) The apparatus of claim 11 and further comprising a security accelerator coupled to the validator to encrypt and/or decrypt messages.

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13. (Withdrawn) The apparatus of claim 12 wherein the validator comprises a validator coupled to the security accelerator to validate messages based on one or more validation templates, the validation templates provided either within the message or retrieved from an external location based on a reference to the validation template provided in the message.

14. (Withdrawn) The apparatus of claim 11 wherein the validator validates a message and then removes validation instructions in the message.

15. (Withdrawn) The apparatus of claim 11 wherein the validator validates a message and then adds to the message an indication that the message has been validated and passes at least a portion of validation instructions to the transformer.

16. (Withdrawn) The apparatus of claim 15 wherein the portion of validation instructions comprises a reference to a validation template.

17. (Canceled)

18. (Withdrawn) The apparatus of claim 11 wherein the first portion of the message and the second portion of the message each may comprise one or more of:
an address and/or port number in the message;
a request line or an identification of an application to process a portion of the message;

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a root element or a root tag or other information that describes the content of the message;

a validation template or a reference to a validation template;

one or more XML tags; and

business transaction information.

19. (Withdrawn) The apparatus of clam 11 wherein the second portion comprises a second portion of the message before the message is transformed.

20. (Withdrawn) The apparatus of clam 11 wherein the second portion comprises a second portion of the message after the message is transformed.

21. (Previously Presented) A method comprising:

receiving a message;

determining if a transformation should be performed on the message;

performing the following if the transform should be performed:

identifying a transform template, based upon a first portion of the message, to be used to transform the message; and

transforming the message from a first format to a second format using the identified transform template; and

switching the message, based upon a second portion of the message, to a selected server or processing node.

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22. (Canceled)

23. (Previously Presented) The method of claim 21 wherein the first portion of the message comprises one or more of the following:

an address and/or port number in the message;

a request line or an identification of an application to process a portion of the message;

a root element or a root tag or other information that describes the content of the message;

a validation template or a reference to a validation template;

one or more XML tags; and

business transaction information.

24. (Previously Presented) The method of claim 21 wherein the second portion of the message comprises one or more of the following:

an address and/or port number in the message;

a request line or an identification of an application to process a portion of the message;

a root element or a root tag or other information that describes the content of the message;

a validation template or a reference to a validation template;

one or more XML tags; and

business transaction information.

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25. (Previously Presented) A method comprising:

receiving a message;

determining if a transformation should be performed on the message;

performing the following if the transform should be performed:

identifying a transform template to be used to transform the message, the

identifying based upon a root element or a root tag or other information that

describes the content of the message, and/or a validation template or a reference

to a validation template;

transforming the message from a first format to a second format using the

identified transform template; and

switching the message to a selected server or processing node based upon

a portion of the message.

26. (Original) The method of claim 25 and further comprising validating the received message.

27. (Original) The method of claim 26 and wherein the validating comprises either removing validation instructions from the message and/or adding an indication that the message has been pre-validated.

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28. (Original) The method of claim 25 wherein the switching comprises switching the message to a selected server or processing node based on tags and/or business transaction information within the message.

29. (Previously Presented) An apparatus comprising a media having instructions thereon, the instructions resulting in the following when executed:

receiving a message;

determining if the message should be transformed;

performing the following if the message should be transformed:

identifying a transform template to be used to transform the message

based on a first portion of the message; and

transforming the message from a first format to a second format using the

identified transform template; and

switching the message to a selected server or processing node based on a second portion of said message.

30. (Withdrawn) An apparatus coupled to a network and one or more processing nodes, the apparatus to receive a message, to validate said message based on required elements, if said message is validated to transform the message from a first format to a second format, and to output the message.

31. (Withdrawn) The apparatus of claim 30 wherein the apparatus comprises a transforming switch comprising:

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a validator to validate said message;

a transformer coupled to the validator to selectively transform messages; and

a switch coupled to the transformer to switch or output the messages.

32-37. (Canceled)